# CLAIMS

What is claimed is:

1. A method usable on a first communication device adapted to communicate with a second communication device, comprising:

obtaining a first key;

encoding an attribute in the first communication device with the first key to produce a first encoded value;

transmitting the first encoded value to the second communication device;

receiving a second encoded value from the second communication device, the second encoded value comprising an attribute stored in the second communication device that has been encoded with a second key associated with the second communication device;

encoding the second encoded value with the first key to produce a third encoded value;

transmitting the third encoded value to the second communication device;

receiving a fourth encoded value from the second communication device, the fourth encoded value comprising the first encoded value after being encoded by the second key; and

determining whether the third encoded value matches the fourth encoded value.

2. The method of claim 1, wherein obtaining a key comprises generating a random number.

3. The method of claim 1, wherein obtaining a key comprises reading a pre-programmed value from memory.

4. The method of claim 1, wherein encoding the attribute with the first key comprises calculating the attribute to the power of the first key to produce the first encoded value.

5. The method of claim 1, wherein the second encoded value comprises the attribute of the second device raised to the power of the second key and encoding the second encoded value with the first key comprises raising the second encoded value to the power of the first key.

6. The method of claim 1, further comprising transmitting the first communication device's attribute to the second communication device only after determining that the third encoded value matches the fourth encoded value.

7. The method of claim 1, further comprising enabling users of the first and second communication devices to locate one another.

8. The method of claim 7, wherein enabling the communication device users to locate one another comprises providing identical images on the first and second communication devices.

9. The method of claim 7, wherein enabling the communication device users to locate one another comprises emitting matching audible sounds via the first and second communication devices.

10. The method of claim 7, wherein enabling the communication device users to locate one another comprises providing each communication device with physical location information of the other communication device.

11. A communication device, comprising:

a processor;

memory accessible to said processor and containing an attribute and software executable on said processor;

a communication interface coupled to said processor and adapted to permit the communication device to communicate with at least one other external device;

wherein, by executing said software, said processor determines whether the communication device's attribute matches an attribute stored in an external device, without receiving the attributes from the external device, based on a first encoded value received via the local communication interface from the external device, said first encoded value being indicative of an attribute stored in the external device.

12. The communication device of claim 11 wherein the processor encodes an attribute contained within the communication device with a key to produce a second encoded value that the processor causes to be transmitted through the communication interface to the external device.

13. The communication device of claim 11, wherein the first encoded value received from the external device comprises an attribute stored in the external device that has been encoded with a key unique to the external device.

14. The communication device of claim 11, further comprising a first key stored in said memory and unique to said communication device, wherein the processor encodes the first encoded value received from the external device with the first key to produce a third encoded value.

15. The communication device of claim 14, wherein the processor transmits the third encoded value to the external device.

16. The communication device of claim 14, wherein the processor receives a fourth encoded value from the external device, the fourth encoded value comprising an encoded version of a second encoded value using the key unique to the external device, the second encoded value produced by the processor encoding an attribute contained within the communication device.

17. The communication device of claim 16, wherein the processor determines whether the third encoded value matches the fourth encoded value.

18. The communication device of claim 12, wherein the key comprises a random number.

19. The communication device of claim 11, further comprising an antenna coupled to the processor, wherein the communication device is adapted to allow users of the communication and external devices to speak with one another via a service provider network.

20. The communication device of claim 11, wherein the processor transmits text messages to the external device via the local communication interface.

21. The communication device of claim 11, wherein the communication interface provides a direct, wireless communication with the external device.

22. The communication device of claim 21, wherein the communication interface implements Bluetooth.

23. The communication device of claim 11, wherein the communication device's attribute comprises an attribute selected from the group comprising contacts, phone numbers, keywords, interests, appointments and favorite restaurants.

24. A system, comprising:

a first communication device having a first plurality of attributes and a first key;

a second communication device having a second plurality of attributes and a second key, the second communication device adapted to communicate with the first communication device;

wherein the first communication device encrypts each of the first plurality of attributes with a first key to form a first plurality of encrypted values and the second communication device encrypts each of the second plurality of attributes with a second key to form a second plurality of encrypted values;

wherein the first communication device transmits each first encrypted value to the second communication device and the second communication device transmits each second encrypted value to the first communication device;

wherein the first communication device encrypts each second encrypted value with the first key to produce a third plurality of encrypted values, and the second communication device encrypts each first encrypted value with the second key to produce a fourth plurality of encrypted values;

wherein the first communication device transmits each third encrypted value to the second communication device, and the second communication device transmits each fourth encrypted value to the first communication device; and

wherein one of the first or second communication devices determines whether any third encoded value matches any fourth encoded value.

25. The system of claim 24, wherein each of the first communication device and the second communication device implement a discovery mode wherein each communication device monitors for the presence of another communication device.

26. The system of claim 25, wherein, while in the discovery mode, a communication device wirelessly emits a beacon signal to locate a another communication device.

27. The system of claim 24, wherein the first key is distinct from the second key.